

# Semi-Annual Environmental Monitoring Report

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Loan No: 3524  
#11 Semi-annual EMR  
Reporting period: July - December 2023  
January 2024

## **Georgia: Rehabilitation of Dzirula–Kharagauli–Moliti–Pona– Chumateleti Secondary Road Section (50Km)**

**Prepared by:** Roads Department of the Ministry of Regional Development and Infrastructure of Georgia for the Asian Development Bank

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## ACRONYMS & ABBREVIATIONS

ADB	Asian Development Bank
BKNP	Borjomi-Kharagauli National Park
EMP	Environmental Management Plan
GRM	Grievance Redress Mechanism
IEE	Initial Environmental Examination
PIU	Project Implementation Unit
RD	Roads Department
SEMP	Site-Specific Environmental Management Plan
TSEMP	Topic Specific Environmental Management Plan
SAEMR	Semi Annual Environmental Monitoring Report
BoQ	Bill of Quantities
SC	Supervision Consultant
dB	Decibel
CC	Construction Contractor
GRCE	Grievance Redress Committee
H&S	Health & Safety
PPE	Personnel Protective Equipment'
IFC	International Finance Corporation
MoEPA	Ministry of Environmental Protection and Agriculture
MoRDI	Ministry of Regional Development and Infrastructure
NCN	Non-Conformance Notice
NCR	Non-Conformance Report
PPE	Personnel Protective Equipment'
SPS	Safeguard Policy Statement

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# 1 INTRODUCTION

## 1.1 Preamble

1. This report represents the Semi-annual Environmental Monitoring Review of Rehabilitation of Dzirula – Kharagauli – Moliti – Pona – Chumateleti Secondary Road Section (50Km).

2. This report is the eleventh Semi-annual EMR for the project and covers July-December 2023 reporting period.

## 1.2 Headline Information

3. Project design review and construction activities have been commenced in September 18, 2018 by Construction Contractor – Black Sea Group (BSG) under LOT 1. There is protected area near the project related road section. The shortest distance between Borjomi-Kharagauli National Park (BKNP) and the existing project road is approximately 1.3 km. BKNP is separated from the existing project by a river gorge, which prevent the transposition of flora and fauna. The shortest distance between BKNP and the existing project road is approximately 1.3 km. BKNP is separated from the existing project by a river gorge, which prevents the transposition of flora and fauna. Therefore, the project will have no direct impacts on the biodiversity of the BKNP. During the project design review by the CS and according to the IEE, it has been confirmed that the project will have no direct impacts on the biodiversity of the BKNP. However, construction contractor selected appropriate access roads to avoid disturbance of the protected area and provide site staff with special training to prevent poaching.

4. Second Contractor “AKKORD ICIC” (Lot 2) started mobilization in July 2019 and set up office at Chumateleti. Contract with “AKKORD ICIC” has been terminated on 3<sup>rd</sup> of November 2021, consequently, no activities were carried out during the reporting period under LOT 2. Within Lot 2, a tender was announced several times to select a construction company, but the winner could not be identified.

5. According to the decision of the Roads Department of Georgia, the necessary funding for the implementation of the remaining construction works on Lot 2 of the project will be allocated from the state budget.

6. CC Akkord ICIC completely abandoned site and only CC BSG carried out construction activities during the reporting period under LOT 1. 4 non-compliances have been identified during the reporting period under LOT 1.

7. It is envisioned, that the road, when improved, will enhance connectivity to a number of towns and villages at the foothills of the mountain ranges and will act as alternate route to parallel segments along E-60. Also, positive impact of the project is local population’s involvement in the road construction process.

## 2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

### 2.1 Project Description

8. The project road is a 50.244 km west to east secondary road, starting from E-60 in Dzirula and ending at E-60 junction at Chumateleti. Most of the project road is within Imereti Region with a few kilometers within Shida Kartli Region, through a gorge with mountain ranges with on both the northern and southern part. It is envisioned that this road, when improved, will enhance connectivity to a number of towns and villages at the foothills of the mountain ranges and can act as alternate route to parallel segments along E-60.

9. For implementation purposes the project was divided into 2 separate sections (lots) of about 25 km each. First section (Lot 1) (Construction Contractor: Black Sea Group) covers above road from Dzirula (km 0+000) to Moliti (km 24+620). The details of the proposed road project are:

- Rehabilitate and pavement of the project road from Dzirula to Kharagauli according Georgian National Standard for Public Motor Roads (SST Gzebi 2009), Geometrical and Structural Requirements with 40 km/h design speed. The pavement within Kharagauli town is planned to execute minimum 4cm asphalt surface course after milling over the area.
- Replacement or repairing of 9 bridges and 102 culverts.
- Construction of side drains and other drainage structures.
- Provision of retaining walls and river protection measures, where necessary.
- Provision of adequate road signing and marking.
- Provision of safety barriers.

10. Second section (Lot 2) (Construction Contractor: Akkord ICIC) covers the above road from Moliti (km 24+620) to Chumateleti (km 50+244). The details of the proposed road section are:

- Rehabilitation and pavement of the project road from Moliti to Chumateleti according to Georgian National Standard for Public Motor Roads (SST Gzebi 2009), Geometrical and Structural Requirements with a design speed of 40km/h.
- Construction of 13 new bridges
- Construction of 86 pipe culverts and 6 box culverts.
- Construction of side drains and other drainage structures.
- Provision of retaining walls and river protection measures, where necessary.
- Provision of adequate road signing and marking.
- Provision of safety barriers.

11. AKKORD ICIC has been selected as the Construction Contractor for LOT 2 (Km 24+620 - Km 50+244), agreement has been concluded on 04.12.2018. Mobilization started in July 2019, construction activities are commenced but far behind planned schedule. There are no construction works during the reporting period (July-December 2023) under LOT 2.

12. The road is to be designed according to Georgian geometric design standard, and accordingly, it shall be sufficient to carry the traffic loading efficiently and with the

vehicles from the opposite directions can pass safely. The design elements for the cross section of the two-lane road are as follows:

- Number of lanes: 2
- Linewidth: 3.00 m
- Carriageway width: 6.00 m
- Width of shoulder: 1.00 m
- Increase of shoulder on embankment 0.50 m
- Total road width: 9.00 m

13. The road design was carried out considering following design philosophy.

- The standards to be applied will follow the Georgian geometric design standard for the selected design speed of 40 km/h, with some flexibility in application when the strict application of the standards would result in an excessively costly technical solution.
- In general, the design follows the existing alignment wherever possible and considers the existing structures. Where the existing alignment does not correspond to the proposed parameters, certain improvements depending on topography, presence of built-up areas and structures are considered.
- The vertical alignment has been maintained in general, with improvements to the sight distances, where the existing topography allow for improvements. To accommodate new pavement layers, the road elevations have increased accordingly where possible.
- The design will result in a cost-effective construction, considering the low traffic volumes on the road and the economic viability of the design.

14. The map of the project road is given in the **Figure 1** below.

**Figure 1: Map of Project Road**



15. The project is classified as category B for the environment under ADB's Safeguard Policy Statement (2009). Project implementation period is 2018-2020. The Extension of Time for Completion has been decided by the Amendment No.6 (20th October 2020) that is extended up to 22<sup>nd</sup> May 2021 as same as Engineer reported in his review by its letter No. PEC/RD/DCSR/20-269 dated on 11<sup>th</sup> September 2020. On 1st December of 2020, Contractor sent a letter (No. DZM/BSG-OUT-MNG-COR-0257) attached with signed Amendment No.6 dated on 20th October of 2020 in which he stated, that besides the signature of the Amendment No.6 the works cannot be completed by 22<sup>nd</sup> May 2021 and an additional time extension will be necessary.

16. The national EIA (IEE) was submitted to the Ministry of Environment and Natural Resources Protection for approval by the Road Department of Georgia on 20 November 2017, and it was approved by MoEPA on 1<sup>st</sup> December 2017. Lot 1 and Lot 2 contractor have obtained all relevant required permits/clearances. The required permits and clearances, statuses, and validity are presented in the **Table 1** below:



**Table 1. Statuses of permits/clearances for LOT 1 and LOT 2**

<b>Lot 1 - Permit Description</b>	<b>Date of approval</b>	<b>Status</b>
Permit for the emissions of hazardous substances into ambient air from stationary sources for batching plant.	Approved Letter №3389/0; 23.04.18.	Valid
Waste management plan	Approved Letter N43/6680; 22.10.18.	Valid
Permit for the Surface Water extraction	Approved Letter № 587/01; 10.07.18.	Valid
<b>Lot 2 - Permit Description</b>	<b>Date of approval</b>	<b>Status</b>
Permit for the emissions of hazardous substances into ambient air from stationary sources for batching plant.	Approved Letter N5273/01; 20.06.18.	Expired
Waste management plan	Approved Letter N43/6680; 22.10.18.	Expired
Permit for the tree cutting	Approved Letter N5/7515; 05.02.2020.	Valid

## 2.2 Project Contracts and Management

17. Consultancy Services (CS) Contract was awarded to JV of Pyunghwa Engineering Consultants Ltd, Yoshin Engineering Corporation and Roads Rehabilitation and Modernization Supervision Direction Ltd for three phases of the project:

- Phase 1–Design review, to be completed in a period of five weeks.
- Phase 2–Construction Supervision and Project Management. The period is for 47 months.
- Phase 3–Defects Notification Period, two years (24 months).

18. The TOR for the Consultancy Contract contains the following tasks for the Environmental Specialists:

- Ensure that the provisions of the approved Environmental Management Plan are reflected;
- in the Contractor’s contract site environmental management plan (SEMP) prior to its acceptance by the Engineer, the Employer and ADB, and there after ensure that the Contractor complies in every respect with the provisions of the SEMP;
- Carry out an environmental auditing for the construction period, regularly

supervise the environmental monitoring and submit periodic reports based on the monitoring data and laboratory analysis reports. These reports will be included as an annex to the Consultant's Monthly Report;

- Develop a program for hands-on training of Contractor's staff in implementing the SEMP. Conduct Post-Construction Environmental Audit and prepare post-construction environmental audit report with filled environmental audit checklist;
- Collection of photo materials of the condition of sites abandoned by the contractor;

19. During the reporting period (July-December 2023) SC carried out monitoring of the abandoned sites under LOT 2 and worked with local authorities for road maintenance.

20. All mitigation measures during construction were implemented respectively by the contractor company - Black Sea Group (BSG) LTD under LOT 1. The contractor company BSG have environmental and safety officers responsible for HSE issues during construction process. Construction Company monitored by the supervision consultant (PYUNGHWA) environmental specialist – Shalva Bosikashvili and Environmental Specialist of RD Ms. Luiza Bubashvili. Environmental Specialists of SC and RD conducted routine observations and inspections of project sites. Summary of site visits during the reporting period (July-December 2023) is provided in **Table 2**.

21. For the mentioned reporting period, the main works on the first lot were already completed on May 31. According to the construction schedule, during the reporting period, there were defects liability process.

22. As for the activities to be carried out after the completion of the construction on Lot I, the construction contractor must: (i) dismantle the construction camp and restore the area; (ii) dismantle the concrete batching plant; and (iii) also dismantle the rebar.

**Table 2: Summary of Site Visits during the Reporting Period (July-December 2023)**

Date of SiteVisit	Staff	Detailed Findings	Required Actions	Date of Report Submitted and to whom
15.09.2023 LOT1	SC and CC	No findings	–	–
08.10.2023 LOT1	SC and CC	No findings	–	–
03.11.2023 LOT1	SC and CC	No findings	–	–
25.12.2023 LOT1	No CS Staff	Uncontrolled placement of hazardous waste in Lot 1 camp area	4	08.01.2024. CC

23. Both Contractors under LOT 1 and LOT 2 prepared Site Specific and Topic Specific EMPs under the guidance of the Supervision Consultant. CS and RD reviewed and verified the applicability of the SEMP and topic-specific EMPs before clearance

and before the commencement of civil works.

24. The list of prepared SSEMPs/TSEMPs and Method Statements (MS) for LOT 1 and LOT 2 and approval statuses are given in **Table 3**.

**Table 3: List of Site-Specific and Topics Specific Environmental Management Plans and Method Statements (LOT 1 and LOT 2)**

No	Plan / Method Statement
1	Site Specific Environmental Management Plan
2	Environmental Management Plan (updated)
3	Waste Management Plan (Construction Phase)
4	Emergency Response Plan
5	Spill Management Plan
6	Wastewater Management Plan
7	Chance Find Procedure
8	Labor Management Procedures
9	Clearance Cultivation Restoration Plan
10	Aggregate and Borrow Pit Management Plan
11	Topsoil Disposal and Erosion Management Plan
12	Air Quality Management Plan
14	Bridge Construction Management Plan
15	Spoil Disposal Management Plan
15	Method Statement for Temporary Roads
17	Method Statement for River Crossings

25. These plans are detailed and set out how the project will address potential issues identified in the impact assessment process and ensure that specific mitigation and monitoring measures are fully implemented.

26. The names and contact details of environmental staff involved in the environmental management are presented in the **Table 4** below:

**Table 4: Description of staff involved in environmental management**

Organization	Position	Name	Nationality	Tenure
ADB/RM	Head Office, Senior Environmental Specialist, Environmental Focal	Ninette R. Pajarillaga <a href="mailto:npajarillaga@adb.org">npajarillaga@adb.org</a>		

	RETA/ADB National Environmental Consultant	Name: Giorgi Kobaladze Cell: +995599689834 e-mail: <a href="mailto:gtkobaladze.consultant@adb.org">gtkobaladze.consultant@adb.org</a>	Georgian	
	Associate Safeguards Officer Georgia Resident  Mission Asian Development Bank	Nino Nadashvili Cell: +995 595 070442  <a href="mailto:nnadashvili@adb.org">nnadashvili@adb.org</a>	Georgian	
Roads Department	Environmental Safeguard Consultant under ADB financed Projects	Luiza Bubashvili Cell: +995595219141 Web: <a href="http://www.georoad.ge">www.georoad.ge</a> <a href="mailto:likabubashvili@yahoo.com">likabubashvili@yahoo.com</a>	Georgian	
Construction Contractor BSG	Environmental Specialist	Levan Kereselidze Cell: 599004082	Georgian	16 months
Construction Contractor Accord ICIC	Environmental Specialist	Farid Bairamov Cell: +995 595 909638 <a href="mailto:Farid.bairamov@inbox.ru">Farid.bairamov@inbox.ru</a>	Azeri	16 months (Absent from 2021 January)
Supervision Consultant Pyunghwa Engineering Consultants Ltd, Yoshin Engineering Corporation and Roads Rehabilitation and Modernization Supervision Direction Ltd	Environmental Specialist	Shalva Bosikashvili <a href="mailto:sbosikashvili@yahoo.com">sbosikashvili@yahoo.com</a> Cell: +995 595 116041	Georgian	16 months

27. Summary of civil works up to May 2023 and work's progress is summarized in **Table 5**. All awarded contracts included EMPs cleared by ADB and conditions of applicable national EIA clearance. No progress has been made under LOT 2 during the reporting period.

**Table 5: Summary of Civil Works Contracts and Work's Progress for Rehabilitation of Dzirula-Kharagauli-Moliti-Pona-Chumateleti Secondary Road Section (50km)**

Scope	Contractor	Signed	Approval Date		Environmental Personnel		Civil Works	
			SSEMP	COVID-19 HSMP	Environmental Officer	Health and Safety Officer	Start	End
Dzilula-Moliti road section from km 0+000 to km24+620	Company Black Sea Group LLC (LOT 1)	04 Dec. 2017	Approved 12.02.2018	Prepared by SC Approved 25.11.2020	Beka Pangani	Beka Pangani	18 Sep. 2018	31 May 2023
Moliti-Chumateleti road section from km 24+620 to km 50+244	Accord Industry Construction Investment Corporation OJSC (LOT 2)	04 Dec. 2018	Approved 04.30.2019	Prepared by SC Approved 25.11.2020	Oleg Tabatadze	Oleg Tabatadze	31 May 2019	16 Nov. 2021

**Progress of Work, LOT 2 (Accord ICIC)**

28. No progress in implementing of construction activities during July-December 2023 reporting period.

**2.3 Description of Any Changes to Project Design and Work Scope Variation Orders, LOT 1/2**

29. Variation order No. 7 issued for LOT 1, since it became necessary to remove certain sections from the project (for more details See **Annex 5 - Variation order No. 7**).

**2.4 Description of Any Changes to Agreed Construction methods**

30. During the reporting period, the contractors (LOT1/LOT2) did not make any major changes in the construction method and design which may influence environmental effects to the project area.

**3. ENVIRONMENTAL SAFEGUARD ACTIVITIES**

**3.1 General Description of Environmental Safeguard Activities**

31. The Supervision Consultant (CS) supervises and monitors the project construction

process for both LOTs. The SC should have both - International & National Environment Specialists in the team. According to the PAM hiring of international environmental specialist was required. International consultant has not been mobilized during the reporting period.

32. SC National Environmental Specialist (Shalva Bosikashvili) prepares semiannual environmental monitoring reports required by ADB and monitors the Construction Contractors HSE performance.

### **3.2 Site Monitoring/Audits**

33. Only LOT 1 HSE inspections have been undertaken during reporting period (July-December) 2023, because no construction activities were implemented under LOT 2.

34. Implementation Status of Corrective Actions proposed in the current environmental monitoring report (July-December 2023) is provided in the **Table 6** below.

**Table 6: Implementation Status of Corrective Actions proposed in the last environmental monitoring report (July-December 2023)**

	<b>Issue</b>	<b>Required Action</b>	<b>Responsibility</b>	<b>Timing (Target Dates)</b>	<b>Description of Resolution and Timing (Actual)</b>	<b>If not yet resolved, indicate the reason why and specify further required action and timeframe.</b>
1	<b>LOT 2</b>  Construction materials (precast concrete, rebar, timber, sand and gravel) left uncontrolled on the ground surface alongside the road.	<ul style="list-style-type: none"> <li>Construction materials should be placed at the dedicated area and covered with tarpaulins.</li> </ul>	CC HSE field Officer	10.07.2022	Contract with CC Akkord has been terminated and they abandoned construction site. Non-compliance is fully corrected by the local municipality.	Closed
2	Different waste is scattered alongside the road (spoil, timber, tree roots, domestic solid waste etc.).	<ul style="list-style-type: none"> <li>Contractor should improve waste management alongside the road.</li> </ul>	CC HSE field Officer	10.07.2022	Contract with CC Akkord has been terminated and they abandoned construction site. Non-compliance is fully corrected by the local municipality.	Closed
3	Deep cuts, trenches and pits, are without relevant barriers and warning signs	<ul style="list-style-type: none"> <li>Contractor should install hard barriers and warning signs around deep trenches and cuts.</li> </ul>	CC HSE field Officer	10.07.2022	Contract with CC Akkord has been terminated and they abandoned construction site. Non-compliance is fully corrected by the local municipality.	Closed
4	Oil drums outdoor, leaking backhoe and scattered waste at the construction base	<ul style="list-style-type: none"> <li>Hazardous liquid should be placed at special dedicated area for hazardous materials.</li> </ul>	CC HSE field Officer	10.07.2022	Contract with CC Akkord has been terminated and they abandoned construction site. Non-compliance is fully corrected by the local municipality.	Closed
5	Cracks on the ground surface at the spoil disposal area (landslide hazard).	<ul style="list-style-type: none"> <li>Conduct survey of ground and in case of landslide hazard elaborate relevant mitigation measures.</li> </ul>	CC HSE field Officer	10.07.2022	Contract with CC Akkord has been terminated and they abandoned construction site. Non-compliance is fully corrected by the local municipality.	Closed

35.Existing non-compliances fully corrected by the local municipality. Please see below photos on Figure 2 of the abandoned sites of LOT 2. In 2023, due to the fact that Lot 2 construction activities were stopped, no HSE audits were conducted by SC.

**Figure 2: Abandoned sites of LOT 2**





### 3.3 Issues Tracking (Based on Non-Conformance Notices)

36. During the reporting period (July-December 2023), Lot 1 construction works were already completed in May 2023. Accordingly, the construction contractor has gradually begun dismantling the construction camp, and it is also planned to dismantle the concrete plant and the rebar workshop.

37. At the stage of the HSE audits conducted during the reporting period, 4 non-conformities were observed, which mainly related to hazardous waste disposal, both solid and liquid, placed uncontrolled in the territory of the construction camp. The mentioned non-compliance needs to be corrected in time because the camp area is no longer properly fenced and getting to it is not a problem for domestic animals.

38. Currently, activities are underway for disposal of the mentioned hazardous waste (see Annex 6 - non-compliance report).

**Table 7. Summary of Issues Tracking Activity for Current Period**

Summary Table	
Total Number of Issues for Project	76
Number of Open Issues	8
Number of Closed Issues	68
Percentage Closed	89.5
Issues Opened This Reporting Period	4
Issues Closed This Reporting Period	4

### 3.4 Trends

39. As mentioned above, during July-December 2023 reporting period construction activities have not been implemented on any lot. Grievance redress system is established, the grievance boxes are located at the entrance of the Company Office in Kharagauli and entrance of the Camps (Kharagauli and Sagandzile).

40. To identify trends in environmental issues, information from previous Bi-Annual EMRs is used. The summary of the issues is provided in the **Table 8** below.

**Table 8: Summary of identified trends in environmental issues**

<b>Semi-Annual EMR No</b>	<b>Total No of Issues</b>	<b>New Issue/ Concern During Reporting Period</b>	<b>% issues Closed</b>	<b>% issues closed rate</b>
1. July 2018 – December 2018	2		100%	0%
2. January – July 2019	12		75%	25%
3. July 2019 – December 2019	12		67%	33%
4. January - July 2020	4		0%	0%
5. July-December 2020	54		66.6%	0%
6. January - July 2021	62		87%	0%
7. July-December 2021	71		81%	0%
8. January-July 2022	71	5	80%	0%
9. July-December 2022	74	4	100%	0%
10. January-July 2022	78	4	100%	0%

### **3.5 Unanticipated Environmental Impacts or Risks**

41. So far unanticipated environmental impacts/risks are not identified.

## **4. RESULTS OF ENVIRONMENTAL MONITORING**

### **4.1 Overview of Monitoring Conducted during Current Period**

42. Environmental monitoring started immediately after the commencement of civil works in September 2018. Due to the fact that the construction activities were completed

in the reporting period, instrumental measurements of quality indicators of the environment were not carried out.

## 4.2 Summary of Monitoring Outcomes

43. Last parametric measurements have been carried out on 04.07.2020. During the reporting period the construction contractor for Lot 1 has not conducted instrumental monitoring measurements. The construction contractor for Lot 2 – “Akkord ICIC” completely abandoned site (contract has been terminated).

44. Based on the fact that construction activities were not ongoing on Lot 1 during the reporting period, environmental quality indicators were not measured on Lot 1.

## 4.3 Material Resources Utilization

45. BSG obtained licenses for gravel and sand extraction (N10000836; N1000948; N1000491. N10000686). The quarry processing projects within these licenses have been prepared and approved by the Ministry of Economy. CC for the Lot 1 have not used any quarry sites during the reporting period. Contract with Lot 2 CC - “Akkord ICIC” has been terminated and CC completely abandoned construction site and accordingly has not used any quarries during the reporting period.

### 4.3.1 Current Period

46. For current reporting period water, gas and electricity consumption for LOT 1 is given below:

Water	M <sup>3</sup>	2788
Gas	M <sup>3</sup>	-
Electricity	KWT/Hour	-

47. Water, gas and electricity consumption data for LOT 2 are not available since there were no construction activities during the reporting period.

## 4.4 Health and Safety

48. No accidents/near misses have been reported during the reporting period.

### 4.4.1 Community Health and Safety

49. BSG (LOT 1) assigned H&S officer (Dato Verulashvili) to oversee H&S performance at the construction sites and camps. During this reporting period no accidents have been identified and recorded in the H&S log book.

### 4.4.2 Workers Safety and Health

50. During June-December 2023 reporting period no accidents have been recorded. Log books for HSE accidents prepared and kept at the camp site. CS carried out

monitoring of the construction sites for LOT 1.

51. All H&S procedures associated with COVID-19 pandemic and recommended by WHO and Georgian government are addressed and followed. H&S plan has been updated according to ADB request on 26.11.2020. Special COVID 19 Emergency Response plan has been elaborated by CCs on 26.11.2020.

#### **4.5 Training**

52. No Trainings have been provided to the contractor's relevant staff during the previous reporting periods.

#### **4.6 Grievance Redress Mechanism**

53. No new complaints were recorded during the reporting period. Only three of the complaints received throughout the project remain open, all of which are associated with infrastructure damage. For more details, please see **ANNEX 2**.

### **5 FUNCTIONING OF THE SEMP**

#### **5.4 SEMP Review**

54. SEMP for LOT 1 was approved on 12.02.2018 SEMP for LOT 2 was approved on 04.30.2019. During preparation of SSEMPs existing EMP was used as a baseline document by CCs.

55. Based on previous SAEMRs used mitigation measures are effective and there is no need for corrections or alternatives. So, no changes needed in the mitigation measures of the Environmental Management Plan at the moment. SEMP for both Lots have been updated according to ADB's requirements and include anti-COVID-19 Measures.

### **6 GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT**

#### **6.4 Good Practice**

56. N/A (Construction activities were not carried out on any lot during the reporting period).

#### **6.5 Opportunities for Improvement**

57. The situation at the construction camp, which is related to the uncontrolled placement of hazardous waste, needs to be corrected in the short term. It is necessary to carry out hazardous waste removal from the territory and safe placement in a short period of time.

58. Received 4 complaints will be resolved during next January-June 2024 reporting period.

## 7 SUMMARY AND RECOMMENDATIONS

### 7.4 Summary

59. No construction activities were carried out on both 1 and 2 Lots during the reporting period.

60. The remaining construction activities of Lot 2 will be implemented with funding from the Georgian state budget;

61. During the reporting period for Lot 1, the process of correcting the deficiencies was ongoing.

62. As for the activities to be carried out after the completion of the construction on the Lot 1, the construction contractor must: (i) dismantle the construction camp and restore the area; (ii) dismantle the concrete plant; and (iii) also dismantle the rebar workshop.

63. Based on the above, during the reporting period, HSE monitoring was mainly carried out only in the territory of the construction camp of Lot 1. Accordingly, 4 non-conformities recorded in the reporting period were mainly related to the situation at the construction camp.

64. The issues identified during this monitoring period are summarized in **Table 9**.

**Table 9. Issues Identified During the Monitoring Period (July-December 2023) (including the pending issues from the previous report(s))**

	Issue	Required Action	Responsibility	Timing (TargetDates)
	<b>LOT 1:</b>			
1.	No construction activities performed during the reporting period			
2	Discrepancies were observed at the stage of dismantling the existing camp. Both solid and liquid hazardous wastes are uncontrollably disposed on the territory of the camp	It is necessary to remove existing hazardous waste from the camp territory in a short period of time.	Construction Contractor	<b>Q1 2024.</b>

3	A concrete batching plant and a rebar shop are still located in the area	It is necessary to dismantle the mentioned devices and restore the territory in the next reporting period.	Construction Contractor	<b>Q1 2024</b>
	<b>LOT 2</b>			
1.	No construction activities performed during the reporting period and therefore no non-compliances revealed during July-December 2023 reporting period.			

## 7.5 Recommendations

65. The following activities are planned for the next July-December 2023 reporting period:

### LOT1

- Based on the fact that construction activities are no longer ongoing, it is no longer necessary to conduct instrumental measurements of quality indicators of the environment;
- CC must continue HSE monitoring until the construction camp, concrete plant and rebar shop are fully dismantled and the area is rehabilitated;
- CC should take corrective actions to correct existing non-conformances.

### LOT2

- It was decided that the remaining construction works will be implemented with the state budget financing;
- The construction company identified after the tender will be obliged to follow the requirements of the national legal framework at the construction stage.

## ANNEXES:

### Annex 1: Site Photos

Date of site visit: 25.12.2023

#### Road signs



#### Lego Blocks



## Bus Stops



KM 2+467 Construction of Bus Stop



KM 14+822 Construction of Bus Stop

## Drainage systems





## Artificial Structures



KM 0+409 Installation of Pipe



KM 6+428 Installation of Pipe.

Annex 2: Complaints

#	Project	Form (verbal or written)	Recipient	Date Received	Location(section/KP)	Community(City/Village)	Soc/Env&HSE	Name & contact of Complainant	Complaint Category	Complaint Description	Resolution Description	Resolution	Resolution Date	Substantiated	Status	Days open	Comments
104	KCMP (Secondary RP)	Written	RD	01.06.22	km42+265-km42+318	Kharagauli village Phona	Env&HSE	Nozadze Gulnaz	Damage to Infrastructure /Assets	Ms. Gulnazi states, that in the process of construction of the reinforced concrete bridge at km 42+300, she has verbally agreed with the Contractor, that temporary bypass road would be arranged in her land plot. The estimated time has already passed, although the temporary road is not removed from her land plot till present. She requests to Remove the temporary bypass road from her plot.	On 02.06.2022 the mentioned issue was studied in place (in the village Phona) together with the owner of the land plot. The corresponding Minutes was prepared. On 10.06.2022 the Employer was informed in writing about the opinion of the Supervision Engineer.	Under review		Pending	Open	211	
106	KCMP (Secondary RP)	Written	RD	28.07.22	km7+440-km7+504	Kharagauli village Lashe	Social	Tsulukidze	Crop Compensation	Resident Valentina Tsulukidze states, that in the process of constructing Lego type retaining wall, the Contractor has cut the slope along her land plot.	On 03.08.2022 the request stated in the letter of Valentina Tsulukidze was studied in place, in the village Lashe. Besides the owner of the land plot, the representative of the local municipality in the administrative unit of village Lashe, Mr. Kakha Kvinikadze has also participated in the discussion of the issue. The Employer was informed in writing about the opinion of Engineer concerning the mentioned issue.	Under review		Pending	Open	154	

108	KCMP (Secondary RP)	Written	RD	09.12.22	km2+608	Zestaphoni village Dzirula	Social	Ebanoidz e Davit	Restriction or loss of access	Mr. Ebanoidze states, that in the process of road construction, access road to the school gates was damaged, also road from gate till school is Damaged. Requests arrangement of a/concrete pavement	On 12.12.2022 the issues mentioned in the letter were studied in place and relevant Minutes was prepared. On 15.12.2022 Employer was informed in writing.	Under review		Pendin g	Open	20	
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**Annex 3: EMoP per CC BSG SSEMP**

**Environmental Monitoring Matrix: Construction Phase**

<b>Object of monitoring</b>	<b>Control/Sampling Point</b>	<b>Technique</b>	<b>Frequency/Time</b>	<b>Target</b>	<b>Entity responsible for Monitoring</b>
Possession of official approval or valid operating license and permits	Supplier of materials (asphalt, cement and gravel)	Inspection	Before an agreement for the supply of materials is formalized	Existence of relevant documentations	Supervising Agency
Truck loads covered/ wetted Air pollution due to the dust and fumes related to the Material Transport	Construction site and access road	Supervision	Daily Unannounced inspections during work hours	Assure compliance with HSE requirements. Ensure safety, and minimize traffic disruption	Constructing Contractor, RD, Supervising Agency
Top-soil storage reinstatement, Erosion control Landscape destruction Visual impacts	Construction site	Supervision	Daily (Unannounced inspections during work hours); From top-soil stripping – to completion of the works	Assure compliance with construction standards, environmental norms and EMP provisions	Constructing Contractor, RD, Supervising Agency
Rivers Visual Inspection Turbidity	Within Rivers Upstream and downstream of worksite and at worksite	Observation  Instrumental measurement of water turbidity, COD, BOD, TPH upstream and downstream	To be conducted prior to construction, periodically during construction (once per week for Turbidity) and following construction completion in the river.	Assure that turbidity is not excessively higher during construction than natural levels in the river. Confirm that other parameter levels have not been exceeded and to confirm that mitigation measures are working or need adapting	Constructing Contractor, RD, Supervising Agency, MEPA
Noise and vibration levels (refer to dedicated Noise and Vibration Monitoring	Construction Site  Near the	Inspection, compliance monitoring (equipment in use	Periodic (as detailed in noise and vibration monitoring plan)	Assure compliance with HSE requirements, good condition of	Constructing Contractor, RD, Supervising

Plans for further detail)	residential buildings	approved, engine maintenance, usage of mufflers, night time work limitations and other provisions of EMP), monitoring of noise continuously at a representative residence near construction activities, noise and vibration measurement by special device		standard construction machinery and limiting the works near settlements  Compliance with the noise and vibration standards  Compliance with the recommendations adopted by the additional studies on assessment and prevention of vibration impacts on the structural integrity of buildings.  Admissible thresholds: Noise – 55dBA(Daytime) – 45 dB (Night time) Vibration 74 dB (Daytime)	Agency, MEPA
Vibration <b>Admissible thresholds:</b> Vibration 74 dBV <b>(Daytime)</b>	Construction site Near the residential buildings	Supervision (refer to dedicated Noise and Vibration Monitoring Plans for further detail)	Unannounced Inspections (as outlined in noise monitoring plan); following complaints	Assure compliance with HSE requirements.	Constructing Contractor, Supervising Agency,
Dust and Air pollution (solid particles, suspended solids, flying heavy metal particles) (dust, CO) Criteria: MAC for dust 0.15mg/m3 For cement dust – 0.5mg/m3 And	Near residential buildings  Along the whole alignment of the road	Visually and instrumentally (dust, CO)	Daily  During material delivery and periodically (weekly) in dry periods during construction	Assure compliance with HSE requirement, assure compliance with environmental norms and EMP provisions	Constructing Contractor, RD, Supervising Agency

MAC for CO ).5 mg/m3					
Traffic safety/ Vehicle/ pedestrian access Visibility/ appropriate signs	Construction site	Observation	Once per week in the evening	Assure compliance	Constructing Contractor, RD, Supervising Agency
Material and waste storage, handling, use Water and soil quality (suspended solids, oils, etc.)	Material and waste storage sites; Run off from site; material storage areas; wash down areas	Observation  Instrumental measurement of water turbidity, COD, BOD, TPH upstream and downstream	During material delivery and periodically during construction (average 1/week), especially during Precipitation (rain/snow/ etc.). Quarterly during construction	Assure pollution abatement; Assure compliance with construction standards, environmental norms and EMP provisions	Constructing Contractor, RD, Supervising Agency – instrumental
Waste Management	All construction sites, Camps	Observation	Once per week	Assure pollution Abatement, Assure compliance with, construction standards, environmental norms and EMP provisions	Constructing Contractor, RD, Supervising Agency
Equipment maintenance and Fueling Water and soil quality (suspended solids, oils, fuel, etc)	Refueling and equipment maintenance Facilities, Run off from site, material storage areas	Observation	During material delivery and periodically during construction (average 1/week), especially during precipitation (rain/snow/ etc.).	Assure pollution abatement	Constructing Contractor, RD, Supervising Agency,
Impacts on archaeological sites and remnants	All earthwork sites	Observation	Permanent/daily	Assure cultural heritage protection	Archaeologist from MoCS Constructing Contractor, Supervising Agency,
biological recontamination during earthworks near pestholes of soil infections (e.g.	All earthwork sites	Observation	Permanent/daily	Assure health protection	Constructing Contractor, RD, Supervising Agency, Veterinary

anthrax);					Department of the MEPA
Protection of infrastructure elements	Crossings of power lines, pipelines;	Observation	During construction activities at the sites of concern	Assure infrastructure protection	Constructing Contractor, RD, Supervising Agency,
Offset tree planting Program	TBD	Observation	During Construction period	Assure offset of damage to flora and landscape	Constructing Contractor, RD, Supervising Agency, MEPA
Reinstatement of work sites	work sites, road alignment, used quarries, camp sites	Observation	During Construction period, after completion of works at concrete site	Reinstatement of work sites not taken by Row	Constructing Contractor, RD, Supervising Agency,
Disposal of construction wastes	work sites, road alignment, used quarries, camp sites	Observation	During Construction period, after completion of works at concrete site	Ensure pollution prevention and landscape protection;	Constructing Contractor, RD, Supervising Agency,
Personal Protective equipment. HSE issues Organization of traffic by-pass	Construction site	Inspection	Unannounced (Daily) inspections during works	Assure compliance with HSE requirements	Constructing Contractor, RD, Supervising Agency,

**Annex 4: Non-Compliance Notice**

**Non-Compliance Notice**

<b>Project: Construction Supervision of Rehabilitation of Dzirula – Kharagauli –Moliti – Pona – Chumateleti Secondary Road Section (50 Km) –Lot 1</b>	<b>Non-compliance Notice</b>  <b>Rehabilitation of Dzirula – Kharagauli – Moliti – Pona – Chumateleti Secondary Road Section (50 Km) –Lot 1 (Contractor-BSG)</b>
<b>Contract No: SRIP/CS/QCBS-01</b>	
<b>Contractor: BSG</b>	
<b>Reference: LOT 1 construction sites</b>	

This notice is to advise the prime Contractor, on the referenced Contract, of the following notice on health, safety and environmental measures to be implemented **urgently**.

**GENERAL COMMENT FOR ALL SITES:**

Hazardous waste is not removed in time during the demolition stage of the construction camp. It is necessary to remove hazardous waste located on the territory of the construction camp in a timely manner. Both solid and liquid hazardous wastes are placed in the territory in an uncontrolled manner.

**NON-COMPLIANCE at the Lot 1 construction sites**

- Tires placed in the territory of the construction camp uncontrollably;
- Containers full of liquid hazardous waste were placed in the territory of the construction camp in an uncontrolled manner;
- Cases of spillage of fuel materials were recorded on the territory of the construction camp;
- Different types of construction materials are placed in the territory without control.

***Backhoe operates without flagman***



***Spoil stockpiles and waste timber***







**Date of site visit: 25.12.2023**

All these conditions have to be remedied within 10 days by the prime Contractor (BSG).

Shalva Bosikashvili - Environmental specialist - Roads Rehabilitation and Modernization Supervision Direction Ltd,

Luiza Bubashvili - Environmental Safeguard Consultant under ADB & EIB financed Projects (RD)

**Annex 5: Variation Order No. 7**

**VARIATION ORDER No.7**

Project: Rehabilitation of Dzirula – Kharagmli – Moliti – Pona – Chumateliti Secondary Road,  
 Dzirula – Moliti Section from km 0+000 to km 24+620  
 პროექტი: ძირულა-ხარაგაული-მოლითი-ფონა-ჩუმათელეთი მეორეხარისხოვანი გზის  
 რეაბილიტაცია,ძირულა-მოლითი საგზაო სექცია კმ 0+000 - კმ 24+620

Subject of Variation: According to the minutes of the meeting in the Roads Department of Georgia on June 24,2022 as a result of mutual agreement reached between the parties, it became necessary to remove certain sections from the project, which led to the issuance of the Variation Order No.7.

ცვლილების საფუძველი: საქართველოს საავტომობილო გზების დეპარტამენტში 2022 წლის 24 ივნისს გამართული მხარეთა შორის მიღწეული ურთიერთ-შეთანხმების შედეგად გახდა საჭირო გარკვეული მონაკვეთების პროექტიდან ამოღება, რის შედეგადაც გამოიცა ვარიაციის ბრძანება No7.

PEC/RD/DCSRS-22- 035 dated 27<sup>th</sup> June 2022  
 PEC/RD/DCSRS-22- 035 27 ივნისი 2022

შეხვედრის ოქმის მიხედვით პროექტიდან ამოღებული სამუშაოების საბოლოო ჯამი  
 The final sum of the works removed from the project according to the Meeting Of Minutes

სექცია/section	მთლიანი ჯამი დღგ-ს გარეშე/ Total Without VAT	დღგ 18% / VAT 18%	ჯამი დღგ-ს ჩათვლით / Total including VAT
კმ 0+000 - კმ 0+230	633,124.20	113,962.36	747,086.56
კმ 6+290-კმ 6 +350	53,888.80	9,699.98	63,588.79
კმ 10+600-კმ11+080	293,747.84	52,874.61	346,622.45
კმ 11+080-კმ 12+270	383,134.15	68,964.15	452,098.30
კმ 22+670-22+900	35,553.60	6,399.65	41,953.24
კმ22+900-კმ24+620	1,144,389.34	205,990.07	1,350,379.37
Total /ჯამი	2,543,837.93	457,890.82	3,001,728.70

Bases: Engineer Letter No. PEC/RD/DCSRS-22- 034 dated 26<sup>th</sup> June 2022  
 საფუძველი: ინჟინრის წერილი PEC/RD/DCSRS-22-034 26 ივნისი 2022

Issued by: JV of PEC, Yooslin and RRMSD  
 Team Leader



/ Mr. KIM Kyu Nam

გაცემულია: Pec, Yooslin & RRMSD ერთობლივი საწარმო  
 უკუფონის ხელმძღვანელი

/ კიმ კი ნამი

Attachment/ დანართი:

1. BOQ
2. Relevant Correspondances / შესაბამისი კორესპონდენცია
3. MOM